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TOWNSEND and TOWNSEND and CREW LLP

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Mark W. Birkhead et al.

Application No.: 10/693,867

Filed: October 28, 2003

For: VOICE ENABLED INTERACTIVE
DRUG AND MEDICAL
INFORMATION SYSTEM

Confirmation No. 4081

Examiner: Simon P. Sing

Technology Center/Art Unit: 2614

APPELLANTS' BRIEF UNDER
37 CFR §41.37

Mail Stop Appeal Brief
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Appeal mailed on July 9, 2007, for the above-referenced application, Appellants submit this Brief on Appeal.

TABLE OF CONTENTS

| | |
|---|----|
| 1. REAL PARTY IN INTEREST | 3 |
| 2. RELATED APPEALS AND INTERFERENCES..... | 3 |
| 3. STATUS OF CLAIMS | 3 |
| 4. STATUS OF AMENDMENTS | 3 |
| 5. SUMMARY OF CLAIMED SUBJECT MATTER | 3 |
| 6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL..... | 5 |
| 7. ARGUMENT | 5 |
| 8. CONCLUSION..... | 8 |
| 9. CLAIMS APPENDIX..... | 9 |
| 10. EVIDENCE APPENDIX..... | 15 |
| 11. RELATED PROCEEDINGS APPENDIX | 16 |

1. REAL PARTY IN INTEREST

At the time of the filing of this appeal brief, Mark Birkhead is the real party in interest for this appeal.

2. RELATED APPEALS AND INTERFERENCES

No other appeals or interferences are known which will directly affect, are directly affected by, or have a bearing on the board decision of the pending appeal.

3. STATUS OF CLAIMS

Claims 1-20 are currently pending in the application, but stand rejected by the Examiner. Claims 1-20 were originally filed in the application on October 28, 2003.

Claims 1-20 are believed improperly rejected and are the subject of this appeal. A copy of the claims as rejected is attached as an Appendix.

4. STATUS OF AMENDMENTS

A Response was filed on March 5, 2007, without amendment to the claims, in response to the Final Office Action mailed January 5, 2007 ("Final Office Action"). An Advisory Action was then mailed April 4, 2007 ("Advisory Action"). No amendments are unentered.

5. SUMMARY OF CLAIMED SUBJECT MATTER

In the following summary, Appellants have provided references to sections of the specification and drawings supporting the subject matter defined in the claims as required by 37 C.F.R. §41.37. The specification and drawings also include additional support for other exemplary embodiments encompassed by the claimed subject matter. Thus, these references are intended to be illustrative in nature only. Claims 1, 13, and 18 are the independent claims. The claimed subject matter relates to a voice enabled interactive drug and medical information system.

Claim 1 recites a voice enabled interactive drug and medical information system that includes an application system, a telephony/voice system, a telecommunications network, and a telephone. Original Application, p. 8, ll. 10-16; Fig. 1, ref. nums. 101, 110, 120, 130, 140. The application system accesses a drug or medical profile of a user to determine content to be used for a set of dynamic prompts to be presented to the user. Id., p. 16, ll. 1-13; Fig. 1, ref. nums. 130, 131, 132. The application system receives a selection transmitted from the user in response to the dynamic prompts. Id., p. 21, ll. 13-21, p. 22, ll. 1-5. The application system receives drug or medical specific information generated by an on-line drug and medical system in response to the user's selection. Id., p. 38, ll. 15-22; Fig. 1, ref. nums. 131, 140, 141. The application system converts the drug and medical information into voice content and instructions. Id., p. 31, ll. 19-22; p. 32, ll. 1-2. A telephony/voice system receives the voice content and instructions that the application system produces and generates an interactive voice response to the voice content and instructions. Id., p. 9, ll. 6-16; p. 10, ll. 9-22; Fig. 1, ref. nums. 120, 121, 123. A telecommunications network transmits the interactive voice response to the user. Id., p. 13, ll. 8-14; Fig. 1, ref. num. 110. The user receives the interactive voice response through a telephone. Id., p. 13, ll. 16-20; Fig. 1, ref. nums. 100, 101, 102, 103.

Claim 13 recites an audio enabled interactive drug and medical information system. Id., p. 8, ll. 10-16; Fig. 1, ref. nums. 101, 110, 120, 130, 140. The system includes a means to access a drug or medical profile of a user to determine content to be used for a set of dynamic prompts to be presented to the user. Id., p. 16, ll. 1-13; Fig. 1, ref. nums. 130, 131, 132. The system includes a means to receive a selection transmitted from the user in response to the dynamic prompts. Id., p. 21, ll. 13-21, p. 22, ll. 1-5. The system includes a means to receive drug or medical event information generated by an on-line drug and medical system in response to the user's selection. Id., p. 38, ll. 15-22; Fig. 1, ref. nums. 131, 140, 141. The system includes a means to convert the drug and medical information into voice content and instructions. Id., p. 31, ll. 19-22; p. 32, ll. 1-2. The system includes a telephony network that transmits the interactive voice response to the user. Id., p. 13, ll. 8-14; Fig. 1, ref. num. 110. The system includes a means for communicating with the telephony network for converting speech and/or DTMF audio responses generated by the user into the information commands to be routed to the

on-line drug and medical system. Id., p. 9, ll. 6-22; p. 10, ll. 9-22; Fig. 1, ref. nums. 120, 121, 123.

Claim 18 recites a method for converting drug and medical specific information into interactive voice responses delivered to a user. Id., p. 8, ll. 10-16; Fig. 1, ref. nums. 101, 110, 120, 130, 140. A drug or medical profile of the user is accessed to determine content to be used to create a set of dynamic prompts that are presented to the user. Id., p. 16, ll. 1-13; Fig. 1, ref. nums. 130, 131, 132. The user selects one of the dynamic prompts. Id., p. 21, ll. 13-21, p. 22, ll. 1-5. In response to that selection, electronic data packets containing the drug and medical specific information obtained from the source of information at an on-line drug and medical information system are generated. Id., p. 38, ll. 15-22; p. 39, ll. 3-11; Fig. 1, ref. nums. 131, 140, 141. The data packets are converted into corresponding voice content and instructions. Id., p. 31, ll. 19-22; p. 32, ll. 1-2. An interactive voice response to the voice content and instructions is generated. Id., p. 9, ll. 6-16; p. 10, ll. 9-22; Fig. 1, ref. nums. 120, 121, 123. An interactive voice response to the voice content and instructions is generated as understandable human speech. Id., p. 9, ll. 6-16; p. 10, ll. 9-22; Fig. 1, ref. nums. 120, 121, 123. The interactive voice response is transmitted to a telecommunications network. Id., p. 13, ll. 8-14; Fig. 1, ref. num. 110. The interactive voice response is delivered to a user through the telecommunications network. Id., p. 13, ll. 16-20; Fig. 1, ref. nums. 100, 101, 102, 103.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether under 35 U.S.C. §102(b), claims 1-20 are anticipated by the cited portions of U.S. Patent Pub. 2002/0138302 to Bodnick (hereinafter "Bodnick"). Sections 2 and 3 of the Final Office Action, mailed January 5, 2007, describe the Examiner's current position on this issue.

7. ARGUMENT

The Final Office Action rejected claims 1-20 under 35 U.S.C. §102(b) as being anticipated by Bodnick. For a valid anticipation rejection, the Office must show that each limitation from the claims appears in a single piece of prior art. Appellants, however, believe significant limitations from independent claims 1, 13, and 18 are neither taught nor suggested in

the references. More specifically, the reference cannot be relied upon to teach or suggest "generating ... packets containing ... information obtained from ... an on-line drug and medical information system" in response to the selection by a user from a set of dynamic prompts, as recited in claim 18. Similar limitations are also found in independent claims 1 and 13.

The Final Office Action relies on Bodnick to teach these limitations. Final Office Action, p. 8, ll. 7-9, citing Bodnick, p. 3, ¶ [0031]. Bodnick, however, teaches a very different system from the one presented in the claims. Bodnick describes a system that "provides automated reminder messages via telephone to encourage patient compliance with health care programs, such as maintaining a regular program of prescription medication consumption." Bodnick, Abstract, ll. 1-4. In Bodnick, for "each patient, a set of patient profile information is stored in a database." Id., p. 3, ¶[0031]. The system "has a timing mechanism for placing calls at specified dates and times as specified in the patient profile database." Id.

The claims, however, specify that certain information be generated *in response* to selections by the user. Specifically, claim 18 recites "generating, in response to the selection, ... packets containing ... information obtained from ... an on-line drug and medical information system". The Final Office Action states that Bodnick teaches this limitation, but Bodnick instead describes "interaction scenarios," wherein the "system will prompt the patient" to input certain information as to whether a patient has "taken their medicine." Final Office Action, p. 2, l. 22; p. 6, l. 9; p. 8, ll. 5-6, citing Bodnick, p. 4, ¶¶[0040]-[0041]; p. 5, ¶¶[0041]-[0042].

The Final Office Action refers back to the sections in Bodnick related to the patient profile. Final Office Action, p. 3, l. 7; p. 6, ll. 11-12; p. 8, l. 9, citing Bodnick, p.3, ¶¶[0031]-[0032]; p. 4, ¶¶[0032], [0034]. However, drug information included in a patient profile is different than obtaining the information from an "on-line drug and medical information system" in response to patient selections, as claimed.

In Bodnick, it appears that "Patient Profile Information" supplies limited information on the medications a patient is taking. See Bodnick, p. 2, ¶[0022]; p. 3, ¶[0031]; Fig. 3, ref. num. 348. More specifically:

In the preferred embodiment, patient profile information includes: (1) the patient's name, with an optional recording of the patient or other person saying the name so the patient will be greeted with a familiar voice and with proper pronunciation; (2) the patient's contact phone numbers; (3) instructions to try a sequence of numbers or other contact devices until a response is provided indicating presence of the patient, or until a suitable answering machine/voicemail is reached; (4) instructions to specify different numbers or number sequences for different days of the week, times of day, special days such as holidays, or combinations thereof. Bodnick, p. 4, ¶[0032].

This patient profile of Bodnick, therefore, is quite different from the claims, which recite a "drug or medical profile of the user" *and* an "on-line drug and medical information system." The system of Bodnick appears to rely instead on just the "patient profile information" for reminders.

Furthermore, the Bodnick system is not accurately characterized in the Advisory Action dated April 4, 2007 ("Advisory Action"). The Advisory Action provides that. "Bodnick . . . teaches an interactive web page." Advisory Action, p. 2, citing Bodnick, p. 3, ¶[0031]-[0032], p. 4, ¶[0032], [0034]. The Advisory Action states that this teaching reads on the claimed online drug and medical system. Id. But this is not what Bodnick teaches. Instead, as noted above, Bodnick teaches a "medical reminder system [that] may be an automated call processing center, a computer-based telecommunications system, or an interactive voice response system" Bodnick, p. 3, ¶[0031]. None of these systems is an interactive web page.

Therefore, the claims at issue specify obtaining, in response to a patient selection, drug or medical information from an on-line drug and medical information system. This limitation is plainly absent from Bodnick, as there is no teaching that information be obtained from an on-line drug and medical information system in response to patient selections.

In light of the foregoing, Appellants respectfully submit that the specified limitations in independent claims 1, 13, and 18 are allowable for at least the foregoing reasons. Claims 2-12, 14-17, 19 and 20 each depend from these independent claims and are believed allowable for at least the same reasons as given above. Appellants respectfully request that the rejections to claims 1-20 under 35 U.S.C. §§102(e) be reversed.

8. CONCLUSION

For these reasons, it is respectfully submitted that the rejection should be reversed.

Respectfully submitted,



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9. CLAIMS APPENDIX

1. (Previously Presented) An interactive system by which to convert drug and medical specific information relating to information events, content and object data generated by an on-line drug and medical information system into interactive voice communications for transmission to a particular user, said interactive system comprising:

an application system to:

access a drug or medical profile of the user to determine content to be used for a set of dynamic prompts to be presented to the user;

receive a selection transmitted from the user responsive to the dynamic prompts;

receive the drug or medical specific information generated by the on-line drug and medical system in response to the selection; and

convert said drug and medical specific information into voice content and instructions;

a telephony/voice system to receive the voice content and instructions produced by said application system and to generate an interactive voice response to said voice content and instructions;

a telecommunications network by which to transmit the interactive voice response generated by said telephony to the user; and

a telephone at which the user receives the interactive voice response transmitted by said telecommunications network.

2. (Original) The interactive system recited in Claim 1, wherein said telecommunications network is one of a cellular telephone network, a mobile telephone network, a satellite telephone network, or a public switched telephone network.

3. (Original) The interactive system recited in Claim 1, wherein said telephone of the user is one of a mobile telephone, a cellular telephone, a terrestrial telephone, or a satellite telephone.

4. (Previously Presented) The drug and medical information system recited in Claim 1, wherein said telephony/voice system has means communicating with said application system by which to receive an outbound call instruction and thereby initiate an outbound call to the telephone of the user by way of said telecommunications network, said telephony/voice system also having means by which to accept an inbound call from the telephone of the user by way of said telecommunications network.

5. (Original) The drug and medical information system recited in Claim 4, wherein the means of said telephony/voice system to accept an inbound call from the telephone of the user is responsive to at least one of the voice of the user or audio tones (DTMF) generated by the user on the telephone of the user.

6. (Original) The interactive system recited in Claim 5, wherein the means of said telephony/voice system to accept an inbound call that is responsive to at least one of the voice of the user or the audio tones generated on the telephone of the user is a speech/DTMF recognition engine that is adapted to convert the user's voice and the audio tones into corresponding voice/DTMF commands.

7. (Original) The interactive system recited in Claim 6, wherein said telephony/voice system also includes a voice instructions interpreter interconnected between said speech/DTMF engine and said application system so as to receive said voice/DTMF commands and to provide to said application system corresponding response instructions to be delivered from said application system to the on-line drug and medical information systems as information instructions.

8. (Original) The interactive system recited in Claim 7, wherein said telephony/voice system also includes a speech/text-to-speech engine communicating with said voice instruction interpreter, said voice instruction interpreter receiving the voice content and instructions produced by said application system and generating voice output instructions in response thereto, said speech/text-to-speech engine receiving said voice output instructions and

transmitting to said telecommunications network understandable human speech that is based on said voice output instructions generated by said voice instruction interpreter.

9. (Original) The interactive system recited in Claim 7, wherein said application system includes an application service that is adapted to convert the response instructions provided by the voice instruction interpreter of said telephony/voice system into information instructions to be delivered to the on-line drug and medical information system.

10. (Original) The interactive system recited in Claim 9, wherein the application service of said application system generates said outbound call instruction to said telephony/voice system to initiate the outbound call to the telephone of the user, whereby to cause the drug and medical specific information from the on-line drug and medical information system to be transmitted to the user as understandable human speech.

11. (Original) The interactive system recited in Claim 9, wherein said application system also includes an application database communicating with said application service to provide information to and receive information from said application service.

12. (Original) The interactive system recited in Claim 1, wherein the drug and medical information specific information received by said application system and converted to voice content and instructions includes at least some of a description of drug or medical items, a user profile containing drug and medical items, notice of new profile event information, the current status of account, and advertising related events.

13. (Previously Presented) An interactive system by which to convert on-line drug and medical information event information corresponding to drug and medical service provider events, content and object data into understandable human speech to be presented to a particular user and to convert speech and/or DTMF audio generated by the user into information commands to be routed to an on-line drug and medical information system in response to the drug and medical service provider event information, said interactive system comprising:

means to access a drug or medical profile of the user to determine content to be used for a set of dynamic prompts to be presented to the user;

means to receive a selection from the user responsive to the dynamic prompts;

means to receive the drug and medical event information from the on-line drug and medical information system generated in response to the selection;

means to convert the drug and medical event information into interactive responses as understandable human speech to be presented to the user;

a telephony network to deliver said interactive responses to the user; and

means communicating with said telephony network for converting the speech and/or DTMF audio response generated by the user into the information commands to be routed to the on-line drug and medical information system.

14. (Original) The interactive system recited in Claim 13, wherein the means to convert the drug and medical information event information into interactive responses as understandable human speech to be presented to the user is a speech/text-to-speech engine.

15. (Original) The interactive system recited in Claim 14, wherein the means to convert the drug and medical event information into interactive responses also includes a voice instruction interpreter communicating with said speech/text-to-speech engine to provide voice output instructions to said speech/text-to-speech engine corresponding to the drug and medical event information received from the on-line drug and medical information system.

16. (Original) The interactive system recited in Claim 15, wherein said means communicating with said telephony network for converting the speech and/or DTMF audio responses generated by the user into information commands includes a speech/DTMF recognition engine communicating with said voice instruction interpreter so as to provide to said voice instruction interpreter voice/DTMF commands corresponding to said speech and/or DTMF audio responses generated by the user, said voice instruction interpreter providing output

information in response to said voice/DTMF commands to be routed to the on-line drug and medical information system as information commands.

17. (Original) The interactive system recited in Claim 13, further comprising call initiation means adapted to receive outbound call instructions and thereby initiate a call to the user by way of said telephony network so that the drug and medical event information can be transmitted to the user.

18. (Previously Presented) A method for converting drug and medical specific information relating to at least some of drug and medical service provider events, content and object data into interactive voice responses to be delivered to a particular user, said method comprising the steps of:

accessing a drug or medical profile of the user to determine content to be used for a set of dynamic prompts to be presented to the user;

receive a selection from the user responsive to the dynamic prompts;

generating, in response to the selection, electronic data packets containing the drug and medical specific information obtained from a source of said information at an on-line drug and medical information system;

converting the data packets into corresponding voice content and instructions;

generating an interactive voice response to said voice content and instructions;

generating an interactive voice response to said voice content and instructions as understandable human speech;

transmitting said interactive voice response to a telecommunications network; and

delivering said interactive voice response to the user by way of said telecommunications network.

19. (Original) The method recited in Claim 18, including the additional steps of:

producing a user generated voice and/or audio (DTMF) signal in reply to said interactive voice response delivered to the user;

transmitting said user generated voice and/or audio signal from the user by way of said telecommunications network;

receiving and converting said user generated voice and/or audio signal into electronic information instructions; and

routing said information instructions to the on-line drug and medical information system.

20. (Original) The method recited in Claim 18, wherein the step of generating an interactive voice response to said voice content and instructions is accomplished by means of a voice instruction interpreter to receive said voice content and instructions and to provide corresponding voice output instructions, and a speech/text-to-speech engine communicating with said voice instruction interpreter to receive said voice output instructions and to provide said interactive voice response as understandable human speech.

10. EVIDENCE APPENDIX

None.

11. RELATED PROCEEDINGS APPENDIX

None.